



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                | CONFIRMATION NO.       |
|--|-------------|----------------------|------------------------------------|------------------------|
| 10/573,109   | 03/23/2006  | Guillaume Bichot     | PU030052                           | 8923                   |
| 24498  | 7590        | 06/08/2009           |                                    |                        |
| Thomson Licensing LLC<br>P.O. Box 5312<br>Two Independence Way<br>PRINCETON, NJ 08543-5312 |             |                      | EXAMINER<br>ELLIOTT IV, BENJAMIN H |                        |
|  |             |                      | ART UNIT<br>2416                   | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>06/08/2009            | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/573,109

**Applicant(s)**

BICHOT ET AL.

**Examiner**

BENJAMIN ELLIOTT

**Art Unit**

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/IB)  
Paper No(s)/Mail Date 12/09/2008 and 2/17/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1- 11 are pending. Claims 1-11 are rejected.

***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on 12/09/2008 and 2/17/2009 have been found to be in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2005/0174943 A1 to Wang (hereinafter "Wang") in view of US Patent Publication 2002/0067729 to Fukuda et al. (hereinafter "Fukuda").

**Regarding Claim 1, Wang discloses a method for controlling Quality of Service (QoS) levels/service levels (Wang: [0012]) within a wired network associated with wireless Local Area Network (LAN) (Wang: [0012]), the wired network having different paths for carrying information frames received from at least one mobile terminal user (Wang: Figure 2. LAN 1 is connected to switches SW1 and SW2 which have multiple communication paths to terminals T11, T12, T13, T21, T22, and T23.), comprising the steps of:**

**receiving in the network at least one frame of information (Wang: [0024]. A port receives a frame.);**

**determining a QoS level/service level for the received frame** (Wang: [0013]. A load balancing decision is determined by a module based on traffic conditions and bandwidth availability based on a corresponding class of service.);

**associating with the received frame an identifier that identifies a path through the network having a transmission capability sufficient to provide the determined QoS level/service level** (Wang: [0013]. The module assigns an identifier in the LAN to identifiers in a WLAN for accommodating a path of communication between the LAN and WLAN based on the QoS.);

**and routing the frame in the network in accordance with the associated identifier** (Wang: [0018]. A packet is sent over the network based on the priority.).

Fukuda also discloses selecting a path based on QoS parameters and associating an identifier for the path (Fukuda: [0053]. The QoS guarantee path establishing portion establishes one or more paths with a QoS guarantee. Flow identifiers are associated with the path that is to be selected for guaranteed QoS routing. [0176]; The QoS guarantee path establishing portion establishes a flow identifier value associated with QoS guarantee setting of the path.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

**Regarding Claim 2, Wang discloses the method according to claim 1 wherein the QoS level/service level is determined from the identity of the mobile terminal user that originated the frame** (Wang: [0024]. The physical address of the terminal that sent the frame can be used for mapping the identifiers of the LAN to identifiers of the WLAN for QoS.).

**Regarding Claim 3, Wang discloses the method according to claim 1, but is** silent on QoS requests from mobile users.

However, Fukuda discloses **wherein the QoS level/service level is determined in accordance with a QoS level/service level request received from the mobile terminal user** (Fukuda: [0025]. A request may be placed by a user.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

**Regarding Claim 4, Wang discloses the method according to claim 1 wherein the step of receiving the information frame comprises the step of receiving an IP packet in an Ethernet Frame** (Wang: [0018]. The packet is an Ethernet data packet.).

**Regarding Claim 5, Wang discloses the method according to claim 4 wherein the step of associating the identifier with the received frame comprises the step of associating a Virtual Local Area Network (VLAN) number with the**

**frame** (Wang: [0013]. The module assigns an identifier in the LAN to identifiers in a WLAN for accommodating a path of communication between the LAN and WLAN based on the QoS. [0023]; The association between the LAN and the WLAN is between an identifier in the WLAN and the VLAN tag in the LAN.).

**Regarding Claim 6**, Wang discloses **the method according to claim 1**, but is silent on routing to separate destinations.

However, Fukuda discloses **wherein the step of routing the frame comprises the step of routing the frame to one of a plurality of separate destinations** (Fukuda: [0021]. A route from a plurality of routes between a source and a destination is chosen based on the QoS of the route.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

**Regarding Claim 7**, Wang discloses **the method according to claim 1 wherein the step of routing the frame comprises the step of routing the frame to one destination across a selected one of a plurality of interfaces** (Wang: Figure 2. SW1, SW2, AP1, AP2, and AP3 collectively comprise many interfaces.).

8. Claims 8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2002/0191572 to Weinstein et al. (hereinafter "Weinstein") in view of Fukuda.

**Regarding Claim 8, Weinstein discloses a wireless Local Area Network (LAN) for routing received information frames** (Weinstein: Abstract; [0040]. Ethernet frames are transmitted.), **comprising:**

**at least one Access Point for receiving radio traffic from at least one mobile terminal** (Weinstein: [0017-0018]. Each sub network comprises at least one access point. Mobile subscriber data is transmitted via gateway routers.) **and for communicating such traffic in the form of at least one information frame** (Weinstein: [0040]. Ethernet frames are transmitted according to IEEE 802.1Q standard.);

**an administrative gateway for establishing a Quality of Service level/service level for the one information frame** (Weinstein: [0084]. Paths are determined between gateways and access points according to QoS requirements imbedded in MPLS labels.) **and for instructing the Access Point to assign an identifier to the frame in accordance with the QoS level/service level established for the frame** (Weinstein: [0017]. Access points can be routers.);

**and a switch for routing the frame to a destination selected in accordance with the assigned identifier** (Weinstein: Abstract; [0017]. A router is connected to network switches to connect paths that are QoS-enabled.).

Weinstein is silent on associating an identifier in accordance with the QoS level.



Fukuda discloses **selecting a path based on QoS parameters and associating an identifier for the path** (Fukuda: [0053]. The QoS guarantee path establishing portion establishes one or more paths with a QoS guarantee. Flow identifiers are associated with the path that is to be selected for guaranteed QoS routing. [0176]; The QoS guarantee path establishing portion establishes a flow identifier value associated with QoS guarantee setting of the path. Figure 2; The network management apparatus instructs the service access point).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Weinstein with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Weinstein by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

**Regarding Claim 10**, Weinstein discloses **the wireless LAN according to claim 8 further including a plurality of routing gateways** (Weinstein: [0017]. The network comprises one or more gateways.), **each comprising a destination for the frame routed by the switch in accordance with the identifier assigned to the frame** (Weinstein: [0074]. The gateway receives a packet for a mobile host.).

**Regarding Claim 11**, Weinstein discloses **the wireless LAN according to claim 8 further including a routing gateway** (Weinstein: [0017]. The network comprises one or more gateways.), **having a plurality of interfaces** (Weinstein: Figure 6), **each interface providing a path for carrying a frame routed by the switch in**

**accordance with the identifier assigned to the frame** (Weinstein: [0074]. The gateway receives a packet for a mobile host.).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weinstein and Fukuda in view of Wang.

**Regarding Claim 9**, Weinstein discloses **the wireless LAN according to claim 8 wherein the switch comprises a Virtual Local Area Network (VLAN) capable Ethernet switch** (Weinstein: [0050]. Each Ethernet switch incorporates the virtual network and QoS services.), but is silent on a VLAN number associated with the identifier.

Fukuda also is silent on the VLAN number.

However, Wang discloses **wherein the identifier assigned to the frame comprises a VLAN number** (Wang: [0013]. The module assigns an identifier in the LAN to identifiers in a WLAN for accommodating a path of communication between the LAN and WLAN based on the QoS. [0023]; The association between the LAN and the WLAN is between an identifier in the WLAN and the VLAN tag in the LAN.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless LAN of Weinstein to include VLAN tags as taught by Wang. This would benefit the wireless LAN by maintaining the quality of service between a wireless LAN and a LAN (Wang: [0022]).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN ELLIOTT whose telephone number is (571)270-7163. The examiner can normally be reached on Monday thru Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/  
Supervisory Patent Examiner, Art Unit 2416

/B. E./  
Examiner, Art Unit 2416